

Amendment Under 37 C.F.R. § 1.116
U.S. Appln. No. 09/688,867

REMARKS

Claims 1-18 are all the claims pending in the application, new claims 17 and 18 having been added, as indicated herein. Claims 8-14 are withdrawn from consideration. Applicant thanks the Examiner for indicating that claims 3-6 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.¹

Claims 1 and 7 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

Claims 1, 2, and 7 are rejected under 35 U.S.C. § 102(b) as allegedly being fully anticipated Huang et al. (U.S. Patent No. 5,592,731), hereinafter referred to as Huang. Claims 1, 2, and 7 are also rejected under 35 U.S.C. § 102(b) as being fully anticipated by Nitta et al. (U.S. Patent No. 6,265,804). Claims 2, 15, and 16 are rejected under 35 U.S.C. § 102(b) as allegedly being fully anticipated by Adachi et al. (U.S. Patent No. 6,317,962), hereinafter referred to as Adachi.

§ 112, second paragraph, Rejections - Claims 1 and 7

Claims 1 and 7 are rejected for the reasons set forth on page 2 of the Office Action. Applicant amends independent claim 1, as indicated herein, and submits that this amendment obviates the § 112, second paragraph, rejection of claim 1. Applicant submits that this amendment should be entered at least because it is only being made for clarification purposes.

Claim 7 is patentable under 35 U.S.C. § 112, second paragraph, at least based on the amendment to claim 1, from which claim 7 depends.

¹ Although not explicitly stated in the Office Action, Applicant assumes that claim 6 also contains allowable subject matter because the Examiner does not indicate that this claim is rejected over a particular reference.

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§ 102(b) Rejections (Huang) - Claims 1, 2 and 7

The Examiner rejects claims 1, 2, and 7 over Huang for the reasons set forth on pages 2 and 3 of the Office Action.

With respect to independent claim 1, Applicant amends claim 1, as indicated herein, and submits that Huang does not teach or suggest at least “each of said laminated magnetic plate strips being an entire layer of a substantially hexahedral laminate and being stacked on top of each other to form the substantially hexahedral laminate,” as recited in amended claim 1. That is, nowhere does Huang show that laminated plate strips that are the layers of a substantially hexahedral laminate are stacked on top of one another to form the substantially hexahedral laminate. Therefore, at least because Huang does not teach or suggest each and every limitation of claim 1, Applicant submits that independent claim 1 is patentably distinguishable over Huang.

Applicant submits that dependent claim 7 is patentable at least by virtue of its dependency from independent claim 1.

With respect to independent claim 2, the Examiner states, on page 3 of the Office Action, “since the two end portions (52) are joined, while the rest of the laminated strips are uniform solid portion, i.e., not being joined by soldering or welding or any bonding means, the rigidity at both end portions inherently is lower than that of the remainder thereof.” In response, Applicant submits that the two end portions 52, as disclosed in Huang, are not necessarily less rigid than the rest of the laminated strip. That is, the stator core of Huang is composed of several segments which, when connected, constitute what is alleged to be the claimed substantial hexahedral laminate strip. Absent any teaching or other evidence about the rigidity of the segments at their

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respective connecting portions, the two end portions of a laminated strip are likely no less rigid than the respective connecting portions where the segments are joined. Therefore, for at least these reasons, Applicant submits that claim 2 is patentable over Huang.

§ 102(b) Rejections (Nitta) - Claims 1, 2 and 7

The Examiner rejects claim 1, 2, and 7 under 35 U.S.C. § 102(b) over Nitta for the reasons set forth on page 3 of the Office Action. Applicant traverses these rejections at least for the following reasons.

With respect to independent claim 1, Applicant submits that Nitta does not teach or suggest at least “each of said laminated magnetic plate strips being an entire layer of a substantially hexahedral laminate and being stacked on top of each other to form the substantially hexahedral laminate,” as recited in claim 1. That is, Nitta does not teach or suggest a substantially hexahedral laminate comprised of stacked laminated magnetic plate strips, wherein each of the strips in its entirety forms a layer of the substantially hexahedral laminate. Nitta only shows a stator core 27, which allegedly corresponds to the claimed substantially hexahedral laminate, that is comprised of circumferentially connected unit cores 29. The stator core shown in Nitta does not show laminated strips that form entire layers of the substantially hexahedral laminate. Unit core 29 only circumferentially connects with other unit cores to form a stator core 27, and does not in its entirety form an entire layer of stator core 27. *See col. 8, lines 30-35.* Consequently, the stator core is comprised of circumferentially connected segments. Therefore, for at least these reasons, Applicant submits that independent claim 1 is patentably distinguishable over Nitta.

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With respect to dependent claim 7, Applicant submits that this claim is patentable at least by virtue of its dependency from claim 1.

With respect to claim 2, the Examiner uses the same reasoning to reject claim 2 over Nitta as used to reject claim 2 over Huang. In response, Applicant submits that claim 2 is patentable over Nitta for at least reasons similar to those set forth above with respect to the § 102(b) rejection of claim 2 over Huang. That is, the two end portions of the stator core 27, as disclosed in Nitta, are not necessarily less rigid than the rest of the stator core. The stator core of Nitta is comprised of several circumferentially connected unit cores 29, and absent any disclosure or other evidence about the rigidity of the unit cores at their connecting points, the portion of the stator core where the two end portions are joined is likely no less rigid than the connecting points where the unit cores are joined. Therefore, for at least these reasons, Applicant submits that claim 2 is patentable over Nitta.

§ 102(b) Rejections (Adachi) - Claims 2 and 15-16

The Examiner rejects claims 2, 15, and 16 for the reasons set forth on page 3 of the Office Action. Applicant traverses these rejections for at least the following reasons.

With respect to independent claim 2, the Examiner states, on page 3 of the Office Action, “since the two end portions are joined, while the rest of the laminated strips are uniform solid portion, i.e., not being joined by soldering or welding or any bonding means, the rigidity at both end portions inherently is lower than that of the remainder thereof.” In response, first, Applicant submits that Adachi does, in fact, disclose that the end portions of the laminated assembly 50 are welded together, contrary to the Examiner’s statement. *See col. 2, lines 65-67.* Further, even if,

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assuming arguendo, the two end portions were not joined by welding, the two end portions, as disclosed in Adachi, are not necessarily less rigid than the rest of the laminated strip. That is, nowhere does Adachi teach or suggest that the end portions of laminated assembly 50 of Adachi have a lower rigidity than that the remainder thereof. Absent any disclosure or other evidence that the end portions of laminated assembly 50 have a lower rigidity than the rest of those strips, the Examiner cannot reasonably allege that such is the case. The Examiner has used impermissible hindsight reasoning in alleging that the rigidity at both end portions is inherently lower than the remainder of the laminated strips. Therefore, for at least these reasons, Applicant submits that claim 2 is patentable over Adachi.

Applicant submits that dependent claim 15 is patentable at least by virtue of its dependency for claim 2.

With respect to independent claim 16, Applicant amends this claim, as indicated herein, and submits that Adachi does not teach or suggest at least “wherein both end portions of the substantially hexahedral laminate are joined and curved so that the cylindrical core proximal portion obtains a predetermined curvature prior to the entire substantially hexahedral laminate being formed into a cylindrical shape,” as recited in amended claim 16. That is, nowhere does Adachi show the cylindrical core proximal portion obtaining a predetermined curvature before the entire substantially hexahedral laminate is formed into a cylindrical shape, as described in independent claim 16. Adachi only shows that an alleged cylindrical core proximal portion is straight, not curved, prior to forming the entire laminate into a cylindrical shape (*see Fig. 2*), or that the alleged cylindrical core proximal portion obtains a curvature only after an entire laminate

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is formed into a cylindrical shape (*see Figs. 6, 9, and 10 - figures 9 and 10 show portions of a laminated assembly that have already been formed into a cylindrical shape*). Therefore, at least based on the foregoing, Applicant submits that independent claim 16 is patentably distinguishable over Adachi.

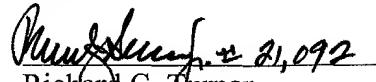
Finally, Applicant adds new claims 17 and 18, as indicated herein, to round out the scope of protection solicited for the present invention. Applicant submits that these claims are patentable at least by virtue of their dependency from claim 1. We also enclose a copy of a self-explanatory letter from Applicant's Japanese patent attorney setting forth some further distinctions over the applied references for the Examiner's consideration.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

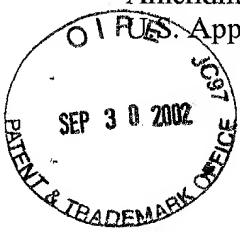
The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

1. (Twice Amended) An iron core of a rotating-electric machine, comprising:

laminated magnetic plate strips, each of said laminated magnetic plate strips connected to being an entire layer of a substantially hexahedral laminate and being stacked on top of each other to form a substantially hexahedral laminate and, after being formed into said iron core, said substantially hexahedral laminate has a cylindrical core proximal portion, said cylindrical core proximal portion having a substantially, smooth-continuously uniform surface located opposite a plurality of teeth;

the plurality of teeth projecting in a substantially radial direction from the cylindrical core proximal portion; and

slots for accommodating a winding that are located between the teeth adjacent to each other,

wherein both end portions of the substantially hexahedral laminate are joined and curved so that the cylindrical core proximal portion obtains a predetermined curvature, the entire substantially hexahedral laminate is formed into a cylindrical shape, and distal ends of the teeth project from the cylindrical core proximal portion, and

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wherein said layer of the substantially hexahedral laminate is a single laminated magnetic plate strip.

16. (Amended) An iron core of a rotating-electric machine, comprising:

laminated magnetic plate strips, each of said strips connected to each other to form a substantially hexahedral laminate and, after being formed into said iron core, said substantially hexahedral laminate has a cylindrical core proximal portion, said cylindrical core proximal portion having at least one indentation located opposite a plurality of teeth;

the plurality of teeth projecting in a substantially radial direction from the cylindrical core proximal portion; and

slots for accommodating a winding that are located between the teeth adjacent to each other,

wherein both end portions of the substantially hexahedral laminate are joined and curved so that the cylindrical core proximal portion obtains a predetermined curvature, prior to the entire substantially hexahedral laminate is-being formed into a cylindrical shape, and distal ends of the teeth project from the cylindrical core proximal portion.

Claims 17 and 18 are added as new claims.